

Virginia Regulatory Town Hall

Final Regulation Agency Background Document

Agency Name:	State Air Pollution Control Board
Regulation Title:	Regulations for the Control and Abatement of Air Pollution
Primary Action:	Part II (9 VAC 5-40-60 et seq.) of 9 VAC 5 Chapter 40
Secondary Action(s):	Part I (9 VAC 5-20-21) of 9 VAC 5 Chapter 20
Action Title:	VOC Emission Standards (Rev. C02)
Date:	November 6, 2003

Please refer to the Administrative Process Act (§ 2.2-4000 et seq. of the Code of Virginia), Executive Order Twenty-Five (98), and the Virginia Register Form, Style and Procedure Manual for more information and other materials required to be submitted in the final regulatory action package.

Summary

Please provide a brief summary of the new regulation, amendments to an existing regulation, or the regulation being repealed. There is no need to state each provision or amendment or restate the purpose and intent of the regulation.

The regulatory action will add four new regulations to Chapter 40 of Regulations for the Control and Abatement of Air Pollution. These regulations will apply only to sources in the Northern Virginia volatile organic compounds emissions control area designated in 9 VAC 5-20-206.

1. The regulation for portable fuel container spillage control (Rule 4-42) will apply (with some exceptions) to any person who sells, supplies, offers for sale, or manufactures for sale portable fuel containers or spouts.
2. The regulation for solvent cleaning (Rule 4-47) will apply (with some exceptions) to each solvent metal cleaning operation, including, but not limited to, cold or vapor degreasing at service stations; motor vehicle repair shops; automobile dealerships; machine shops; and any other metal refinishing, cleaning, repair, or fabrication facility. The provisions of this article also apply to sellers of solvents for use in a cold cleaning machine.
3. The regulation for mobile equipment repair and refinishing (Rule 4-48) will apply (with some exceptions) to each mobile equipment repair and refinishing operation. The provisions also apply to each person who sells coatings used in such operations.

4. The regulation for architectural and industrial maintenance coatings (Rule 4-49) will apply (with some exceptions) to any person who supplies, sells, offers for sale, or manufactures any architectural coating for use, as well as any person who applies or solicits the application of any architectural coating.

The regulations will establish emission standards, consisting of emission limits and control technology requirements, and other requirements which control levels of VOCs being emitted into the ambient air. They will also establish source surveillance requirements which (i) provide the enforcement basis, specify test methods and procedures, and specify procedures for monitoring for determining compliance with the emission standards; and (ii) require the owner to provide certain notifications, records and reports in order that the department may determine compliance with emission standards and other applicable requirements.

Substantial Changes Made Since the Proposed Stage

Please briefly and generally summarize any substantial changes made since the proposed action was published. Please provide citations of the sections of the proposed regulation that have been substantially altered since the proposed stage.

Portable Fuel Container Spillage Control (Rule 4-42).

A minor clarification has been made. [9 VAC 5-40-5700 I]

Solvent Cleaning (Rule 4-47)

No changes have been made to this regulation.

Mobile Equipment Repair and Refinishing (Rule 4-48)

Minor clarifications have been made [9 VAC 5-40-6970 C 4, 9 VAC 5-40-6990 A and B, 9 VAC 5-40-6990 C 10, 9 VAC 5-40-6990 F 4]

Architectural and Industrial Maintenance Coatings (Rule 4-49)

1. Various corrections and clarifications have been made. [throughout]
2. Definitions have been added or revised. [9 VAC 5-40-7130 C]
3. A VOC content limit for extreme durability coatings of 400 grams per liter has been added. [9 VAC 5-40-7140 B]
4. Because the list of test methods included in the section on test methods and procedures is duplicative of 9 VAC 5-20-21, technical documents incorporated by reference, it has been eliminated, with the exception of several added provisions relating to exempt compounds. [9 VAC 5-40-7220 D]

Statement of Final Agency Action

Please provide a statement of the final action taken by the agency, including the date the action was taken, the name of the agency taking the action, and the title of the regulation.

On November 5, 2003, the State Air Pollution Control Board adopted final amendments to regulations entitled "Regulations for the Control and Abatement of Air Pollution", specifically VOC Emission Standards (9 VAC Chapter 40, Articles 42, 47, 48, and 49). The regulation amendments are to be effective on a date as provided in the Administrative Process Act.

Basis

Please identify the section number and provide a brief statement relating the content of the statutory authority to the specific regulation adopted. Please state that the Office of the Attorney General has certified that the agency has the statutory authority to adopt the regulation.

Section 10.1-1308 of the Virginia Air Pollution Control Law (Title 10.1, Chapter 13 of the Code of Virginia) authorizes the State Air Pollution Control Board to promulgate regulations abating, controlling and prohibiting air pollution in order to protect public health and welfare. Written assurance from the Office of the Attorney General that the State Air Pollution Control Board possesses the statutory authority to promulgate the regulation amendments is available upon request.

Purpose

Please provide a statement explaining the rationale or justification of the regulation as it relates to the health, safety or welfare of citizens.

The purpose of the regulations is to require owners to limit emissions of air pollution from portable fuel containers, solvent cleaning, mobile equipment repair and refinishing, and architectural and industrial maintenance coatings to the level necessary for (i) the protection of public health and welfare, and (ii) the attainment and maintenance of the air quality standards. The regulations are needed in order to provide emissions reductions sufficient to achieve the ozone standard in Northern Virginia.

Substance

Please identify and explain the new substantial provisions, the substantial changes to existing sections, or both where appropriate. Please note that a more detailed discussion is required under the statement providing detail of the changes.

1. Portable Fuel Container Spillage Control (Rule 4-42) establishes standards for emissions of volatile organic compounds from portable fuel containers and spouts. Exempted from the regulation is any portable fuel container or spout manufactured for shipment, sale, and use outside of the Northern Virginia volatile organic compound emissions control area. Also exempted is a manufacturer or distributor who sells, supplies, or offers for sale a portable fuel container or spout that does not comply with the emission standards specified in 9 VAC 5-40-5720, as long as the manufacturer or distributor can demonstrate that: (i) the portable fuel container or spout is intended for shipment and use outside of the Northern Virginia volatile organic compound emissions control area; and (ii) that the manufacturer or distributor has taken reasonable prudent precautions to assure that the portable fuel container or spout is not distributed within the Northern Virginia volatile organic compound emissions control area. Also exempted are safety cans meeting the requirements of 29 CFR Part 1926 Subpart F. Also exempted are portable fuel containers with a nominal capacity less than or equal to one quart. Also exempted are rapid refueling devices with nominal capacities greater than

or equal to four gallons, provided such devices are designed either (i) to be used in officially sanctioned off-highway motorcycle competitions, (ii) to create a leak-proof seal against a stock target fuel tank, or (iii) to operate in conjunction with a receiver permanently installed on the target fuel tank. Also exempted are portable fuel tanks manufactured specifically to deliver fuel through a hose attached between the portable fuel tank and the outboard engine for the purpose of operating the outboard engine.

2. Solvent Cleaning (Rule 4-47) establishes standards for emissions of volatile organic compounds from cold cleaning machines, batch vapor cleaning machines, in-line vapor cleaning machines, airless or air-tight cleaning machines, and other equipment.

3. Mobile Equipment Repair and Refinishing (Rule 4-48) establishes standards for emissions of volatile organic compounds from automotive pretreatment primer, automotive primer-surfacer, automotive primer-sealer, automotive topcoat, single stage-topcoat, 2-stage basecoat/clearcoat, 3- or 4-stage basecoat/clearcoat, automotive multi-colored topcoat, automotive specialty coating, and other coatings. Exempted from the regulation for mobile equipment repair and refinishing is any mobile equipment repair and refinishing operation subject to Article 28 (9 VAC 5-40-3860 et seq.) of 9 VAC 5 Chapter 40 (Emission Standards for Automobile and Light Duty Truck Coating Application Systems). Also exempted is any mobile equipment repair and refinishing operation subject to Article 34 (9 VAC 5-40-4760 et seq.) of 9 VAC 5 Chapter 40 (Emission Standards for Miscellaneous Metal Parts and Products Coating Application Systems). Also exempted is any person applying the coatings who does not receive compensation for the application of the coatings.

4. Architectural and Industrial Maintenance Coatings (Rule 4-49) establishes standards for emissions of volatile organic compounds from lacquer coatings, metallic pigmented coatings, shellacs, fire-retardant coatings, pretreatment wash primers, low-solids coatings, wood preservatives, high-temperature coatings, temperature-indicator safety coatings, antenna coatings, antifouling coatings, flow coatings, bituminous roof primers, specialty primers, sealers, undercoaters, and other coatings. Exempted from the regulation for architectural and industrial maintenance coatings is any architectural coating that is sold or manufactured for use exclusively outside of the Northern Virginia Volatile Organic Compounds Emission Control Area or for shipment to other manufacturers for reformulation or repackaging. Also exempted is any aerosol coating product. Also exempted is any architectural coating that is sold in a container with a volume of one liter (1.057 quart) or less. Also exempted are coating plants whose emissions of volatile organic compounds are not more than 2.7 tons per year, 15 pounds per day, and 3 pounds per hour, based on the actual emission rate.

5. The regulations incorporate by reference a number of provisions from other regulations concerning standards for visible emissions, odor, and toxic pollutants; compliance; test methods and procedures; monitoring; notification, records, and reporting; registration; facility and control equipment maintenance or malfunction; and permits.

6. The regulations apply to affected facilities and persons in jurisdictions within the Northern Virginia volatile organic compounds emissions control area designated in 9 VAC 5-20-206: the counties of Arlington, Fairfax, Loudoun, Prince William, Stafford; and the cities of Alexandria, Fairfax, Falls Church, Manassas, Manassas Park.

Issues

Please provide a statement identifying the issues associated with the regulatory action. The term "issues" means: 1) the primary advantages and disadvantages to the public of implementing the new or amended provisions; and 2) the primary advantages and disadvantages to the agency or the Commonwealth. If there are no disadvantages to the public or the Commonwealth, please include a sentence to that effect.

1. Public: The primary advantage to the public is that the adoption of these regulations will significantly decrease emissions of VOCs in the Northern Virginia area, thus benefiting public health and welfare. There are no disadvantages to the public.
2. Department: The primary advantages to the department are that the adoption of these regulations will allow Virginia (1) to avoid federal sanctions that would be imposed for violating the SIP provisions of the Clean Air Act, and (2) to uphold its promise to its jurisdictional neighbors (Maryland and Washington, D.C.). There are no disadvantages to the department.

Public Comment

Please summarize all public comment received during the public comment period and provide the agency response. If no public comment was received, please include a statement indicating that fact.

A summary and analysis of the public testimony, along with the basis for the decision of the Board, is attached.

Detail of Changes

Please detail any changes, other than strictly editorial changes, made since the publication of the proposed regulation. This statement should provide a section-by-section description of changes.

Portable Fuel Container Spillage Control (Rule 4-42).

1. A section has been added stating that the terms "supply" or "supplied" do not include internal transactions within a business or governmental entity. [9 VAC 5-40-5700 I]

Solvent Cleaning (Rule 4-47)

No changes have been made to this regulation.

Mobile Equipment Repair and Refinishing (Rule 4-48)

1. A subsection has been added indicating that the regulation does not apply to a mobile equipment repair and refinishing operation that uses coatings required to meet military specifications where no other existing coating can be used that meets the provisions of the regulation. [9 VAC 5-40-6970 C 4]
2. Language clarifying applicability has been added. [9 VAC 5-40-6990 A and B]
3. The requirement that a coating application technique other than those listed that achieves emission reductions equivalent to or greater than those achieved by HVLP or electrostatic spray application method be approved by the board has been removed. [9 VAC 5-40-6990 C 10]
4. Housekeeping and pollution prevention and training measures have been revised to specify that a person who applies mobile equipment repair and refinishing coatings has completed training approved by the manufacturer of the coatings. [9 VAC 5-40-6990 F 4]

Architectural and Industrial Maintenance Coatings (Rule 4-49)

1. A section has been added stating that the terms "supply" or "supplied" do not include internal transactions within a business or governmental entity. [9 VAC 5-40-7120 D]
2. Cross-references to 9 VAC 5-20-21 (Technical Documents Incorporated by Reference) have been added or corrected. [throughout]
3. The definition of "bitumens" has been revised to specify that they are obtained from natural deposits of asphalt. [9 VAC 5-40-7130 C]
4. The definition of "bituminous roof primer" has been revised to indicate that it does not incorporate bitumens that are labeled and formulated exclusively for roofing. [9 VAC 5-40-7130 C]
5. A definition of "extreme durability coating" has been added. [9 VAC 5-40-7130 C]
6. The definition of "metallic pigmented coating" has been revised to include that that type of coating may also contain at least 48 grams of mica particles or any combination of metallic pigment or mica particles per liter of coating. [9 VAC 5-40-7130 C]
7. A VOC content limit for extreme durability coatings of 400 grams per liter has been added. [9 VAC 5-40-7140 B]
8. The VOC content of thinning material has been clarified. [9 VAC 5-40-7140 E]
9. Because the list of test methods included in the section on test methods and procedures is duplicative of 9 VAC 5-20-21, technical documents incorporated by

reference, it has been eliminated, with the exception of several added provisions relating to exempt compounds. [9 VAC 5-40-7220 D]

10. The year 2005 has been corrected to 2006. [9 VAC 5-40-7230]

Family Impact Statement

Please provide an analysis of the regulatory action that assesses the impact on the institution of the family and family stability including the extent to which the regulatory action will: 1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children; 2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one's spouse, and one's children and/or elderly parents; 3) strengthen or erode the marital commitment; and 4) increase or decrease disposable family income.

It is not anticipated that these regulation amendments will have a direct impact on families. However, there will be positive indirect impacts in that the regulation amendments will ensure that the Commonwealth's air pollution control regulations will function as effectively as possible, thus contributing to reductions in related health and welfare problems.

COMMONWEALTH OF VIRGINIA
STATE AIR POLLUTION CONTROL BOARD
SUMMARY AND ANALYSIS OF PUBLIC TESTIMONY FOR
REGULATION REVISION C02
CONCERNING

VOC EMISSION STANDARDS
(9 VAC 5 CHAPTER 40)

INTRODUCTION

At the April 2003 meeting, the board authorized the department to promulgate for public comment a proposed regulation revision concerning VOC emission standards.

Public hearings were advertised accordingly and held in Fredericksburg and Woodbridge, Virginia on August 26, 2003 and the public comment period closed on September 12, 2003. The proposed regulations subject to the hearing are summarized below followed by a summary of the public participation process and an analysis of the public testimony, along with the basis for the decision of the Board.

SUMMARY OF PROPOSED AMENDMENTS

The proposed regulation amendments concerned provisions covering VOC emission standards. A summary of the amendments follows:

The proposed regulatory action will add the following new sections:

Portable Fuel Container Spillage Control (Rule 4-42)

- 9 VAC 5-40-5700. Applicability and designation of affected facility.
- 9 VAC 5-40-5710. Definitions.
- 9 VAC 5-40-5720. Standard for volatile organic compounds.
- 9 VAC 5-40-5730. Administrative requirements.
- 9 VAC 5-40-5740. Compliance.
- 9 VAC 5-40-5750. Compliance schedules.
- 9 VAC 5-40-5760. Test methods and procedures.
- 9 VAC 5-40-5770. Notification, records and reporting.

Solvent Cleaning (Rule 4-47)

- 9 VAC 5-40-6820. Applicability and designation of affected facility.
- 9 VAC 5-40-6830. Definitions.
- 9 VAC 5-40-6840. Standard for volatile organic compounds.
- 9 VAC 5-40-6850. Standard for visible emissions.
- 9 VAC 5-40-6860. Standard for fugitive dust/emissions.

- 9 VAC 5-40-6870. Standard for odor.
- 9 VAC 5-40-6880. Standard for toxic pollutants.
- 9 VAC 5-40-6890. Compliance.
- 9 VAC 5-40-6900. Compliance schedules.
- 9 VAC 5-40-6910. Test methods and procedures.
- 9 VAC 5-40-6920. Monitoring.
- 9 VAC 5-40-6930. Notification, records and reporting.
- 9 VAC 5-40-6940. Registration.
- 9 VAC 5-40-6950. Facility and control equipment maintenance or malfunction.
- 9 VAC 5-40-6960. Permits.

Mobile Equipment Repair and Refinishing (Rule 4-48)

- 9 VAC 5-40-6970. Applicability and designation of affected facility.
- 9 VAC 5-40-6980. Definitions.
- 9 VAC 5-40-6990. Standard for volatile organic compounds.
- 9 VAC 5-40-7000. Standard for visible emissions.
- 9 VAC 5-40-7010. Standard for fugitive dust/emissions.
- 9 VAC 5-40-7020. Standard for odor.
- 9 VAC 5-40-7030. Standard for toxic pollutants.
- 9 VAC 5-40-7040. Compliance.
- 9 VAC 5-40-7050. Compliance schedule.
- 9 VAC 5-40-7060. Test methods and procedures.
- 9 VAC 5-40-7070. Monitoring.
- 9 VAC 5-40-7080. Notification, records and reporting.
- 9 VAC 5-40-7090. Registration.
- 9 VAC 5-40-7100. Facility and control equipment maintenance or malfunction.
- 9 VAC 5-40-7110. Permits.

Architectural and Industrial Maintenance Coatings (Rule 4-49)

- 9 VAC 5-40-7120. Applicability and designation of affected facility.
- 9 VAC 5-40-7130. Definitions.
- 9 VAC 5-40-7140. Standard for volatile organic compounds.
- 9 VAC 5-40-7150. Container labeling requirements.
- 9 VAC 5-40-7160. Standard for visible emissions.
- 9 VAC 5-40-7170. Standard for fugitive dust/emissions.
- 9 VAC 5-40-7180. Standard for odor.
- 9 VAC 5-40-7190. Standard for toxic pollutants.
- 9 VAC 5-40-7200. Compliance.
- 9 VAC 5-40-7210. Compliance schedules.
- 9 VAC 5-40-7220. Test methods and procedures.
- 9 VAC 5-40-7230. Notification, records and reporting.

SUMMARY OF PUBLIC PARTICIPATION PROCESS

Public hearings were held in Fredericksburg and Woodbridge, Virginia on August 26, 2003. Three persons attended the hearing, none of whom offered testimony; and seven written comments were received during the public comment period. As required by law, notice of this hearing was given to the public on or about July 14, 2003 in the Virginia Register, the Fredericksburg Free Lance-Star, and the Washington Times. In addition, personal notice of this hearing and the opportunity to comment was given by mail to those persons on the department's list to receive notices of proposed regulation revisions. A list of hearing attendees and the complete text or an account of each person's testimony is included in the hearing report which is on file at the department.

ANALYSIS OF TESTIMONY

Below is a summary of each person's testimony and the accompanying analysis. Included is a brief statement of the subject, the identification of the commenter, the text of the comment and the Board's response (analysis and action taken). Each issue is discussed in light of all of the comments received that affect that issue. The Board has reviewed the comments and developed a specific response based on its evaluation of the issue raised. The Board's action is based on consideration of the overall goals and objectives of the air quality program and the intended purpose of the regulation.

PORTABLE FUEL CONTAINER SPILLAGE CONTROL (RULE 4-42)

1. **SUBJECT:** Definition of "supply."

COMMENTER: Department of the Navy

TEXT: As discussed in our Rule 4-49 comments, while it is clear that the terms "supplies" and "supplied" would apply to retail distributors and manufacturers, it is unclear whether the term would also apply to HAZMAT pharmacy type facilities at military installations. It is recommended that the regulation be amended to include a definition for the term "supply" or "supplied" so that the regulation does not include internal transactions within a business or governmental entity.

RESPONSE: We agree that the distinction between internal and external supply transactions needs to be clarified, and have done so in the applicability section rather than adding a new definition.

SOLVENT CLEANING (RULE 4-47)

No comment was received on this regulation.

MOBILE EQUIPMENT REPAIR AND REFINISHING (RULE 4-48)

2. **SUBJECT:** Exemptions.

COMMENTER: Department of the Navy

TEXT: The focus of this rule is to control VOC emissions by regulating the application of surface coatings to mobile equipment or mobile equipment components. This effort is to be applauded and should result in reductions in VOC emissions. Likewise, the Department of Defense (DOD) is committed to sustaining and improving air quality. For example, DOD has invested significant resourcing into technology and development of low VOC chemical agent resistant coatings such that the bulk of all the coatings now meet federal air quality standards. DOD has implemented air quality programs at all installations such that many of them participate in Ozone Action Day operations such as closing military fueling stations on Code Red ozone days. DOD is also actively engaged in converting fleets of non-tactical vehicles used on the bases, such as pickup trucks and work vans, to natural gas and other alternative fueled vehicles. We specifically appreciate the exemptions specified in section 9 VAC 5-40-6970 B, and request three additional exemptions be added:

A. EPA will soon propose a new NESHAP source category called "Defense Land System and Miscellaneous Equipment Surface Coating." DOD expects EPA to propose this category by February 2004. This category will cover surface coating of ground based equipment at military and NASA facilities at the limited number of facilities categorized under definition of the Clean Air Act as major sources of air pollutants. For DOD and NASA facilities, it will replace the requirements of the following surface coating NESHAPs: Miscellaneous Metal Parts and Products, Plastic Parts and Products, Large Appliances, Metal Furniture, Wood Products, and Fabric Coating and Dyeing. We therefore recommend that the following paragraph be added to the exemptions listed in 9 VAC 5-40-6970 (C): "(4) The mobile equipment repair and refinishing operation is subject to the Emissions Standards for the Defense Land System and Miscellaneous Equipment surface coating NESHAP."

B. The majority of DOD facilities are not major sources of air pollutants and therefore would not be captured under the exemption in paragraph A above. We request an exemption be added for coatings required to meet military specification where no other existing coating can be used that meets the proposed Virginia standards. The bulk of DOD chemical agent resistant coatings meet the proposed standards. However there are a few specialty coatings for some component parts used in small volumes that do not meet the proposed standards but are necessary to meet the requirements of military specifications.

C. Finally, we request consideration of exempting DOD hobby shop coating operations operated for non-commercial purposes. Other comparable regulations specifically exempt hobby shops from application of the regulation. These include: 40 CFR 63.4681(a)(4), the proposed Wood Building Products Surface Coating NESHAP; 40 CFR 63.4081(d)(4), the final Large Appliance Surface Coating NESHAP; 40 CFR 63.3881(c)(3), the proposed Miscellaneous Metal Parts and Products Surface Coating NESHAP; and 40 CFR 63.4481(c)(9), the proposed Plastic Parts and Products Surface

Coating NESHAP. Hobby shop means any surface coating operation, located at an affected source, that is used exclusively for personal, noncommercial purposes by the affected source's employees or assigned personnel. We do not believe the intent of this proposed regulation is to include hobby shops. We therefore recommend that the following paragraph be added to the exemptions listed in 9 VAC 5-40-6970 (B): "The surface coating process occurs at hobby shops operated for noncommercial purposes."

RESPONSE: With respect to requested exemption A: only final federal standards may be legally adopted, not ones yet promulgated. When the standards become final, they will be incorporated by reference into Article 2 of 9 VAC Chapter 60, Environmental Protection Agency National Emission Standards for Hazardous Air Pollutants for Source Categories. At that point, they will then apply to the affected sources as delineated by the commenter. No change has been made to the proposal based on this comment.

With respect to requested exemption B: this comment is acceptable, and appropriate changes reflecting the intent of the comment have been made to the proposal.

With respect to requested exemption C: hobby shops are already exempt under 9 VAC 5-40-6970 C 3. No change has been made to the proposal based on this comment.

3. **SUBJECT:** Applicability.

COMMENTER: Washington Metropolitan Auto Body Association

TEXT: WMABA recommends that hobbyists not be excluded from this regulation, as it currently does in 9 VAC 5-40-6970 C 3. The paint and refinish materials used to paint motor vehicles are very hazardous to humans and very toxic to the environment. No one should be allowed to use these materials without proper training on how to use and safe disposal.

RESPONSE: We agree that paint and refinish materials should be used responsibly; however, we do not believe that hobbyists present a significant air pollution or safety problem. No change has been made to the proposal based on this comment.

4. **SUBJECT:** Refinishing coating training.

COMMENTER: Washington Metropolitan Auto Body Association

TEXT: WMABA approves of the requirement that the owners of mobile equipment refinish operations have proof that the person who applies refinishing coatings has training in the proper use and handling of these materials, 9 VAC 5-40-6990 F 4. We recommend that the regulation specify that training be provided by a paint supplier (paint jobber) or by the paint manufacturer and that other forms of training are not acceptable.

RESPONSE: This comment is acceptable, and appropriate changes reflecting the intent of the comment have been made to the proposal.

ARCHITECTURAL AND INDUSTRIAL MAINTENANCE COATINGS (RULE 4-49)

5. **SUBJECT:** Consistency with ozone attainment demonstration.

COMMENTER: Sherwin-Williams

TEXT: The department has stated that it must implement the OTC model rule without any real change in order to satisfy the conditions of EPA's approval of the 1998 1-Hour Ozone Attainment Demonstration for the Washington Metropolitan Area. Review of EPA's approval, and the underlying documents, however, indicates that the department has much more flexibility. The department must take some combination of measures to achieve the targeted levels of emissions reductions. It is not obligated to adopt the OTC model AIM rule, or any other particular emissions reduction measure on the OTC list, without modification.

After performing numerous calculations, we feel reasonably comfortable that Pechan made its conclusions from the information in the voluntary survey that there would be a 31% reduction in VOC emissions if the OTC states adopted the model rule. The actual reductions in VOC emissions from the adoption of the model rule will be closer to 60%. Virginia and the other states will have much more flexibility with reductions of this magnitude. The 60% reduction is calculated using the more statistically reliable California survey data. We know of no valid objection to this data's use to predict emission reductions.

It has been predicted by California that adopting the CARB SCM for architectural coatings will result in a 20% reduction in VOC emissions for the state compared with current emissions. The current emissions in California are significantly less than the emissions in the OTC states since California has had severe VOC restrictions for architectural coatings for some time. Since the OTC model rule is the California SCM (except for the industrial maintenance limit and a few very insignificant categories), it is reasonable to assume that the results of both rules should be comparable and that the per capita emissions after the rules are in effect should be comparable.

We have performed a calculation of expected emission reductions using the California survey results with the appropriate adjustments. The California survey shows sales of architectural coatings having emissions of 43,300 tons per year. The total population is a little under 34,000,000 people. California expects a 20% reduction from the implementation of the rule. If one takes the total emissions reported in the survey and multiplies by a factor of .8, the result is an expected emission, after the rule, of 34,640 tons per year. Dividing 34,640 by the population of a little less than 34,000,000 results in a per capita emission of 2.05 pounds per person per year.

Pechan's report shows a post national rule emission factor of 5.36 pounds per person per year. Virginia's population in the year 2000 was reported as about 7,078,515. If we apply that 5.36 pounds per person to the 7 million people, the result is an expected total emission of 18,970 tons per year, with the national rule in effect, before the new proposed model rule. Based on California's 2.05 pounds per person per year, Virginia should expected total emissions, after the rule, of 7,255 tons per year (2.05 times 7,078,515 divided by 2000). Comparing the 2.05 pounds per capita after the rule to the 5.36 before the rule, shows an emission reduction of 11,715 tons per year (or 32 tons per day), which is a total reduction of over 60% with the California rule.

Sherwin-Williams has requested that emissions limits for certain subcategories of coatings be retained at the current limits in the national rule and not be reduced to the unattainable limits mandated by the AIM rulemaking. While such adjustments would result in fewer emission reductions on an overall basis, the amount of emission reductions using current market data as discussed above would result in exponentially more emission reductions for Virginia than the "lost" reductions for the categories of concern to Sherwin-Williams.

The subcategories and requested limits upon which the 60% emission reduction is based are:

	<u>OTC</u>	<u>National Rule (Requested)</u>
Interior wood clear and semitransparent stains	250	550
Interior wood sanding sealers	350	550
Interior wood varnishes	350	450
Exterior wood primers	200	350
Porch, floor and deck coatings (opaque)	250	380

These requested modest increases in the limits, if adopted, would allow these popular products to continue to be used in Virginia until a suitable substitute can be developed.

RESPONSE: The proposed regulation is one of the control measures selected by the Metropolitan Washington Air Quality Committee in order to implement a regional plan for the Washington DC-MD-VA ozone nonattainment area, which was submitted to EPA on August 19, 2003. In this plan, reductions were apportioned to states based on OTC rules and an analysis of the OTC rules (E.H. Pechan, "Control Measure Development Support Analysis for the Ozone Transport Commission Model Rules," March 31, 2001). Our understanding is that the emission reductions methodology was also approved by EPA. In order for us to accept a different methodology for calculating emission reductions, concurrence from both MWAQC and EPA would be needed. Such concurrence would have to be obtained before we could consider reconsidering the substance of the rule.

This regulatory action is not intended to address solely Virginia's ozone problem but the problem of ozone transport throughout the entire northeastern corridor of the United

States. Part of the strategy for solving the northeast's ozone problem was for the states to adopt essentially identical rules. The suggestion that Virginia completely revamp the technical basis on which this regulation was developed ignores this large-scale regional directive behind the decision to adopt these regulations for the metropolitan Washington area, a decision made by the MWAQC--not by Virginia alone--after it examined many other alternatives. The point of the rulemaking is for Virginia, Maryland, and Washington, DC, to develop programs that parallel those of the other states in the Ozone Transport Region in order to give sources a unified directive and a solid financial incentive to lower VOC emissions.

No change has been made to the proposal as a result of this comment.

6. **SUBJECT:** Consistency with ozone attainment demonstration.

COMMENTER: National Paint and Coatings Association

TEXT: The National Paint and Coatings Association has developed an alternative Table of Standards that also incorporates waterborne technology for many of the important large volume coatings such as flat and nonflat coatings. Our limits we estimate would secure in excess of 70% of the emissions purportedly secured by the Virginia rule even under the assumptions used by Virginia. But in so doing our suggested table of standards minimizes these trade-offs while securing additional VOC emission reductions beyond those achieved by the national AIM coatings VOC rule. Additionally, our proposal would continue the use of solvent borne materials for stains and certain primers, and sealers. The rulemaking does not even evaluate the suggestion thus ignoring any requirements to analyze the cost-effectiveness of reasonably available alternatives to the proposed rule such as a cap-trade program. The Sherwin-Williams Company has made a submission to the Pennsylvania Independent Regulatory Review Commission. In that submission, Sherwin-Williams Company convincingly demonstrates that the emission reductions calculated in the Pechan Report upon which Virginia relies for the efficacy of its proposed rule understate the actual emissions that will be achieved. The data if properly calculated supports acceptance of our Table of Standards and suggests that the emissions reductions resulting from implementation of our Table of Standards will definitely exceed the 70% plus figure we have provided.

It has been suggested that the VOC limits of the OTC rule are now going into effect in California and that if there are problems with coatings they will surface in sufficient time to make any needed corrections in the OTC rules which would go into effect in 2005. This is a false insurance policy. First, as noted, the impact of California weather is different. Second, the performance problems with which are concerned – durability – take more than two years to manifest themselves. And finally, many of the higher VOC coatings will still be allowed in California through exemptions and averaging programs that will allow the sale of higher VOC noncompliant coatings, an averaging program that is not permitted under the OTC rule. As a result of the averaging, many coatings that would be banned under the rule, will continue to be available in California during the “experiment.”

So the “experiment” of how these lower VOC coatings perform will not be conducted in the hothouse environment of California which will further mask deficiencies with the continued availability of the higher VOC coatings through averaging. Instead, it will be conducted here in Northern Virginia after the rule becomes effective --- with all of the potential problems no longer hypothetical and in the future but real and current and unhidden by a balmy climate and an averaging program.

As you may know, NPCA filed an administrative appeal to the Delaware rule. The summation of arguments at the hearing also are included. Though they are raised in the particular context of the Delaware rulemaking, they are relevant to the Virginia rulemaking as well. This is especially true with respect the manner in which both rulemakings rely so heavily upon the rulemaking record of the California Air Resources Board (CARB).

RESPONSE: See response to comment 5. Also, it should be noted that the Delaware Environmental Appeals Board endorsed the architectural and industrial maintenance coatings regulation for its state. Staff representatives from the California Air Resources Board and the New York Department of Environmental Conservation, as well as paint and coating manufacturers and the American Lung Association of Delaware provided the data necessary for the board to determine that the technology was available, cost effective, and not a burden on industry. They emphasized that such regional regulations are dependent on areawide adoption of essentially identical regulations in order to avoid complicating the standards that manufacturers must meet.

No change has been made to the proposal as a result of this comment.

7. **SUBJECT:** Assessment of cost effectiveness.

COMMENTER: Sherwin-Williams, National Paint and Coatings Association

TEXT: The department relies uncritically on technical, cost and cost-effectiveness analyses done by the state of California, and has done no independent analyses. The California analyses are not appropriate for use here for several reasons.

First, the department has not established that the relevant product markets are sufficiently similar in the two states for Virginia to justify wholesale adoption of the California analyses. No Virginia-specific market research was performed, despite the obvious differences between the states with respect to significant aspects of the product markets. In particular, the weather differences produce obvious differences in product markets. One simple example of such a difference is a product marketed for low-temperature applications, which is not marketed in California, but is marketed in Virginia. Another example is that products dedicated to wood porches would not be marketed in southern California, where they apparently have no such construction.

Second, as discussed above, for certain key subcategories within the broad categories identified in the rule, there are no compliant products.

Third, the analyses done by California and the OTC did not evaluate either the availability of or the costs related to implementation of the limits proposed for all of the categories of coatings to which the proposed rule would apply. The California studies (later uncritically adopted by the OTC) looked only at the costs of reducing the VOC content of 11 categories of coatings. It was only for those 11 categories that California determined an average cost of \$6,400 per ton of VOC reduced. However, the department is proposing limits for 52 categories, with 31 more stringent than the rule currently effective in the northern Virginia area, and with 40 category limits more stringent than the federal rule. The analysis used for California is not sufficient for Virginia because of the limitations in its scope – even ignoring critical weather and product market differences.

Fourth, the CARB cost estimates that the Department now seeks to adopt in a wholesale fashion improperly discounted the costs of reformulation, assumed a 10% discount rate no longer appropriate in today's economy, and discounted the cost estimates by two thirds based on an assumption that the manufacturers were already complying with AIM rules applicable in the South Coast Air District. Just factoring the two thirds discount back into the cost estimate of \$6,400 per ton (an appropriate adjustment given the data cited above) increases the control cost-effectiveness figure to \$19,200 per ton, far exceeding any reasonable cost effectiveness figure. Thus, even if one were to assume that production of products meeting the limits were technically achievable (which is a false assumption), at a cost of \$19,200 per ton, the price increase for interior stains would be \$24 per gallon. Clearly, this is not a cost-effective control measure.

RESPONSE: See the response to comment 5. Also note that in selecting control measures for the Northern Virginia SIP--a process that has been ongoing since the mid-1990s--MWAQC has always endeavored to select the most cost-effective measures first. However, relying exclusively on these measures was not enough for the area to meet the standard, making additional reductions from more costly measures necessary.

Additionally, due to limited resources that must be used efficiently and effectively, states often rely on EPA for technical and policy support for regulatory initiatives. However, there are times when EPA does not provide such support, and states must develop their own technical and policy information. It is not unusual for states to work collectively and pool scarce resources to develop a basis for a regulation. Nor is it unusual or precedent-setting for a state to rely on the resources of another state that may be ahead of others in the development of technical and policy bases for regulations. The consolidation of state resources for a consistent regulatory approach is especially important when regulating products produced by national manufacturers. This is the approach being taken in developing the AIM rule for OTC states, who have pooled their resources and developed studies to determine the appropriateness of use of the California rules on the east coast. These studies were supported and endorsed by EPA and MWAQC, and provide a valid basis for the Virginia rule.

No change has been made to the proposal as a result of this comment.

8. **SUBJECT:** Review of potentially available alternatives.

COMMENTER: Sherwin-Williams, National Paint and Coatings Association

TEXT: Market-based mechanisms were not considered by the department, notwithstanding the Department of Planning and Budget's comment that the Illinois cap-and-trade program should have been considered and analyzed extensively. There was no attempt to identify or analyze the full range of reasonably available alternatives to the proposed rule. Instead, only a superficial analysis of alternatives was carried out, which ignored readily identifiable alternatives that could achieve emission reductions very close to those that can be achieved by the proposed rule, but with far fewer adverse economic impacts on the state, and less dislocation to the product markets.

For example, the department failed to evaluate revisions based on an inability to meet the VOC content limits due to economic and/or technical infeasibility. All manufacturers should have the opportunity to demonstrate that compliance with the rules is not feasible. Sherwin-Williams has proposed alternative limits for five specific architectural coatings, out of 52 total coating categories covered under the proposed rule. As discussed above, there are no compliant coatings for these five coating categories that meet all of the necessary performance requirements. The department failed to consider different standards as a reasonably available alternative measure. This does not reflect the spirit of cooperation with private industries embodied in Virginia environmental law (§ 10.1-1307 A).

In contrast, the department accepted the fact that compliant coatings either are not available or would be unreasonably costly for seven other product categories. The facts concerning the coating categories addressed by Sherwin-Williams provide at least as compelling a case for alternate limits as the facts for those other categories based upon the intended purpose of the products.

In addition, the department failed to evaluate the inclusion of an averaging provision in the rule. It appears that the department overlooked the impact on special performance products of excluding an averaging provision and dismissed the fact that averaging provisions are included in the limits upon which this rule is based. As discussed in more detail below, the department dismissed the fact that averaging provisions are included in both the South Coast Air Quality Management District rules and the CARB SCM, the limits upon which the rule is based.

Averaging is a necessary element for the proposed rule, because without it manufacturers would be prevented from selling certain coatings that satisfy particular performance needs in the marketplace. For example: a unique exterior latex product specifically designed and marketed for application at lower temperatures was formulated specifically to extend the painting season as long as possible. This need had previously been satisfied only by the use of solvent-borne products with high VOC contents. However, this product will be unavailable unless averaging is allowed because the content of this product is over the proposed 100 gram per liter limit. Another example of a special performance product, a

washable interior latex product, evinces the need for averaging. Unlike other products that make a variety of similar claims, this product actually has the cleaning performance usually found only in solvent-borne coatings. However, this product line would not be available under the proposed rule at any sheen level, since it exceeds the VOC content limits in the proposed rule.

Finally, the department failed to consider options for the rule's applicability that would focus the rule more closely on the nonattainment area and season that give rise to the need to obtain further emission reductions.

It also appears that the department overlooked the impact on special performance products of excluding an averaging provision, as highlighted by the inclusion of an averaging provision in both of the measures relied upon by the department as forming the basis of the proposed regulation, namely the South Coast Air Quality Management District and the CARB SCM. The department fails aptly to support the basis for its deviation.

The department has ignored the record of the adoption of the California SCM, which clearly shows that CARB intends the SCM to continue to include a flexibility option after January 1, 2005. For example, one specific flexibility option being considered by CARB is changing the entire SCM foundation to a reactivity basis, rather than the current organic content basis, prior to the sunseting of the averaging provision. Without further justification for the department's variation on inclusion of an averaging provision, its decision excluding such a provision places an unreasonable and unequal burden on the architectural coating industry.

RESPONSE: As discussed in the response to comment 5, this regulatory action is not intended to address solely Virginia's ozone problem but the problem of ozone transport throughout the entire northeastern United States. To suggest that Virginia implement a Chicago-style cap-and-trade program instead of adopting the proposed regulations ignores the large-scale regional directive behind the decision to adopt these regulations. As directed by the Metropolitan Washington Air Quality Committee, Virginia, Maryland, and Washington, DC are to develop programs that parallel those of the other states in the Ozone Transport Region in order to give sources a unified directive and a solid financial incentive to lower VOC emissions. Furthermore, because of the complexity of federal guidance and the stringency of federal oversight on emissions trading, the development of a cap-and-trade program would take years longer to develop and implement than will the regulations, with VOC emissions remaining unreduced in the meantime.

No change has been made to the proposal as a result of this comment.

9. **SUBJECT:** Supporting analyses.

COMMENTER: Sherwin-Williams

TEXT: § 10.1-1308 of the Code of Virginia states that where the proposed regulations are more restrictive than federal law mandates, the department must explain the reason why the more restrictive requirements are necessary. The proposed regulations are certainly more specific and restrictive than the broad mandates of the Clean Air Act, and there is no requirement under any of the related orders from the EPA requiring that the OTC be adopted, and therefore the department must justify the proposed rule. In doing so, the department may not ignore the requirements of interrelated statutes, including the reasonableness requirement.

§ 10.1-1307 of the code requires the department to perform a reasoned analysis of the problem and the proposed solution, by mandating that the department “consider the facts and circumstances relevant to the reasonableness of the activity involved and the regulations proposed to control it.” As enumerated in § 10.1-1307 E, the factors the board must consider in determining reasonableness are: (i) the character and degree of injury to, or interference with, safety, health, or the reasonable use of property which is caused or threatened to be caused; (ii) the social and economic value of the activity involved; (iii) the suitability of the activity to the area in which it is located; and (iv) the scientific and economic practicality of reducing or eliminating the discharge resulting from such activity. The department failed to complete the fourth prong of this analysis, which underscores the concerns of responsible members of the industry that will be affected by such rules. It is insufficient for the department to presume that the OTC/Pechan data and analyses are accurate, scientifically valid, or relevant to regulating Virginia’s needs. Nor may the department place wholesale reliance on the opinions of California regulators in order to determine Virginia’s particular needs. Indeed, the only way for the department to ensure compliance with the fourth part of § 10.1-1307 is for the department itself first to rely on valid and relevant data and analyses, and second to evaluate the economic impact of the proposed regulations. This is discussed in greater detail below.

First, the department is obligated to perform a thorough evaluation of the cost-effectiveness of the proposed rule, including a comparison with the cost-effectiveness of reasonably available alternatives. Based on the proposed rule and related rulemaking materials, the department did not analyze the cost-effectiveness of any reasonably available alternatives to the proposed rule.

In addition to the lack of cost-effectiveness analyses, the only discussion of costs and cost-effectiveness of the proposed rule itself (not the alternatives) depends entirely on analyses done by the state of California, with no effort expended by the department to identify specific costs for Virginia, or to address any relevant differences between the climatic conditions or the markets for the regulated products in Virginia and California. In fact, the department has not undertaken any independent cost analysis whatsoever, and instead relied solely on information used by CARB to support the SCM. The department should recognize that the climate in Northern Virginia is different than the climate in Los Angeles or San Diego, and that these climatic and demographic dissimilarities cause the relevant product markets to differ. Cost impacts will also vary substantially between Northern Virginia and California. The department should have

studied conditions in and costs specific to Northern Virginia, rather than relying unquestioningly on studies done by California.

The Department's failure to undertake any Virginia-specific cost analyses is startling, especially given that, at the CARB estimate of \$6,400 per ton of VOC reduced (which, as noted elsewhere, is itself a significant underestimate), the proposed rule would be far and away the least cost-effective of the five OTC model rule VOC reduction measures. As summarized in the Pechan report prepared for the OTC, the cost-effectiveness estimates for those five control measures are as follows:

Control Measure	Dollars Per Ton
Portable Fuel Containers	450
Consumer Products	800
Solvent Cleaning Operators	1,400
Mobile Equipment Repair	1,534
AIM	6,400

Thus, under the CARB/Pechan analysis, the AIM rule ranged from four times to nearly 15 times less cost-effective than any of the other VOC control measures. Had the department performed a thorough analysis, large differences rated above should have prompted close scrutiny to Virginia-specific costs and benefits.

Further, the substantive differences in and narrow scope of the California studies provided even more important reasons to carry out Virginia-specific analyses. The California studies (subsequently relied upon by Pechan) addressed only 11 coating categories. In contrast, more than 40 additional categories are addressed in the proposed rule. The department has not conducted any cost-benefit analyses with respect to these other 40-plus categories. In addition, the California cost analyses studied the California rule, which allowed averaging for a portion of the time period studied. As noted above, Virginia has not proposed to include an averaging provision. Finally, had the department undertaken any critical analysis of the California studies, it would have found the unreasonable assumptions identified above, which, when corrected, would produce a cost-effectiveness number substantially higher than the one utilized by the department.

RESPONSE: Federal law and regulation provide a two-pronged approach for states in selecting control measures that implement § 110 plans for attainment and maintenance of air quality standards. First, certain federal requirements dictate mandatory specific control measures. If a state cannot demonstrate that implementation of these specific measures will achieve the necessary emission reductions and meet the standard, then the state must proceed to the second step of selecting additional controls as needed to meet the standard. In this case, the mandatory federal requirements were insufficient,

and MWAQC was obligated to seek additional controls. The fact that they have done so is not more restrictive than the federal requirements, it is in itself a federal requirement.

With respect to cost analysis, the Administrative Process Act, and various Executive Orders and directives mandate that certain data and information relative to costs and benefits be included in agency background documents in support of regulatory actions. These procedures require the agency and the Department of Planning and Budget to provide cost data and an economic impact analysis. These general procedures are also adequate for fulfilling the specific requirements of § 10.1-1307.

With respect to averaging, as discussed in the response to comment 5, regional consistency by using OTC rules is important. The OTC rules do allow averaging up to January 1, 2005, but because Virginia's rule will not be effective until that date, use of averaging would not be consistent.

No change has been made to the proposal as a result of this comment.

10. **SUBJECT:** Technical feasibility.

COMMENTER: Sherwin-Williams

TEXT: The proposed rule relies upon the assumption that compliant coatings are available for all architectural coating products covered under the proposed rule. This assumption, based on incomplete information obtained from studies conducted in California, is wrong. As is discussed below, compliant coatings are not available for five important subcategories: interior wood stains; interior clear wood finishes (sanding sealers and interior varnishes); exterior wood primers; and floor coatings. For these categories and subcategories, the current National AIM regulations are already aggressive. These regulations call for maximum VOC limits for the following categories of architectural coatings:

Stains, clear and semi-transparent: 550 grams/liter
Sanding sealers: 550 grams/liter
Varnishes: 450 grams/liter
Exterior wood primers: 350 grams/liter
Floor coatings: 400 grams/liter

These federal limits represent the outside limits to which the VOC content of these products can be reduced, while still providing the end users with adequate performance characteristics.

If the OTC limits embodied in the proposed rule are adopted, the restrictions on VOC content will essentially prohibit the sale or use in Virginia of commercial quantities of these products that are not water-based. Such a prohibition will create several significant market and performance problems, the most noteworthy being lapping for stains, panelization for sealers and varnishes, bleeding, leaching and swelling for

exterior wood primers, and loss of durability for floor coatings. The result is a prohibition on the sale and use of commercial quantities of these products and a substantial adverse economic impact. Such market and performance impacts should not be allowed to occur when very simple solutions to these problems are readily available, such as adopting more reasonable limits for products that cannot currently conform to the proposed standards.

RESPONSE: In selecting controls, MWAQC had initially selected the federal rule for AIM coatings in an attempt to minimize unnecessary costs. However, as discussed in the response to comment 7, it was demonstrated that the AIM rule did not achieve enough emissions reductions. MWAQC was therefore obliged, as discussed in the response to comment 9, to proceed to the next level of control, which is the OTC rule.

No change has been made to the proposal as a result of this comment.

11. **SUBJECT:** Technical feasibility.

COMMENTER: National Paint and Coatings Association

TEXT: This industry does not oppose lower VOC products. Our members prefer to make low VOC products because customers prefer to use them. The industry's R&D efforts are a constant exercise to improve coating acceptability and competitiveness in the market. Our industry is intensely competitive with relatively low margins and with the overall demand for AIM coatings strictly tied to the population growth. Reduced solvent content is a major means for achieving product preference in this very tough market -- so long as it does not compromise coatings performance.

But depending upon the needed application, very low VOC products cannot serve all requirements or needs. Moreover, in a mindless demand for ever lower VOC products, performance characteristics of the coatings can suffer to the point where application becomes more difficult, more initial coats will be required to provide adequate coverage and hiding, and durability and surface abrasion resistance are lowered. All of these performance problems will result in more coatings being applied initially and earlier repainting of surfaces. All of this will result in higher costs for consumers and society, and increased, not lowered, VOC emissions.

There are a number of performance trade-offs that occur with waterborne materials technology. For example, formulating with the softer binders required of low solvent waterborne coatings softer binders forces low-solvent paint makers to make some difficult choices. If they obtain good hardness and block resistance through such mechanisms as heterogeneity and cross linking, low temperature film formation may not be possible. The use of heterogeneity and a cross-linking mechanism typically has a detrimental effect on scrub resistance. The absence of other solvents such as glycol makes freeze/thaw stability highly problematic, which is another issue of more concern in northern Virginia. Freeze/thaw stability is the ability of a waterborne coating to withstand freezing without being destroyed -- an issue for all waterborne coatings being moved and stored in this

state during the winter. Some in our industry have decided to abandon this performance characteristic in order to use the limited solvent allowed under limits like those in the Northern Virginia rule to remedy other performance problems. What this means is that trucks carrying such coatings will have to be heated as will warehouses, etc. And this will impose added costs not only on the manufacturer/shipper, but on the end user too and on society in the form of more energy consumption. None of these costs or consequences are considered in the rulemaking.

RESPONSE: See response to comment 10. No change has been made to the proposal as a result of this comment.

12. **SUBJECT:** Definition of "supply."

COMMENTER: Department of the Navy, Department of the Air Force

TEXT: In response to enhancing the management of hazardous materials at military installations, the military services adopted and implemented an innovative approach to managing hazardous materials, including coatings, that are used at military installations. The approach establishes a single point of control and accountability over the purchase, receipt and distribution of hazardous materials to the various organizations around a military installation. In the Air Force, for instance, this "single point of control" is called the hazardous material (HAZMAT) pharmacy. HAZMAT pharmacies receive, approve, and process all requests for hazardous materials submitted by the various organizations on an installation. Then, once the materials are ordered, purchased, and obtained by a HAZMAT pharmacy, the HAZMAT pharmacy "supplies" the various organizations with requested amounts of a particular hazardous material for use.

9 VAC 5-407120 (applicability) states that "[e]xcept as provided in subsection C of this section, the provisions of this article apply to any person who supplies . . . any architectural coating for use . . ." (emphasis added) Also, the proposed requirement at 9 VAC 5-40-7140 (C) states that "[a] coating manufactured prior to January 1, 2005, may be . . . supplied . . . until December 31, 2007." (emphasis added)

While it is clear that the terms "supplies" and "supplied" would apply to retail distributors and manufacturers, it is unclear whether the term would also apply to HAZMAT pharmacy type facilities at military installations. We do not believe the intent of the proposed regulation applies to this type of operation. While it is clear that the terms "supplies" and "supplied" would apply to retail distributors and manufacturers, it is unclear whether the term would also apply to HAZMAT pharmacy type facilities at military installations. It is recommended that the regulation be amended to include a definition for the term "supply" or "supplied" so that the regulation does not include internal transactions within a business or governmental entity. In the absence of including a definition for the term "supply" or "supplied" in the rule, it is requested that Board either provide a written reply clarifying whether the terms would apply to

HAZMAT pharmacies and similar type facilities at military installations, or clarify this issue in the Board's response to comments on the proposed rule.

If the Board decides a definition is needed, the following is recommended: "'Supply' or 'supplied' does not include internal transactions within a business or governmental entity. This term only applies to transactions between coating manufacturers/commercial distributors that sell, or otherwise provide, coatings to businesses/governmental entities/individuals."

In addition, a manufacturer of any architectural coatings is required to display certain information, such as VOC content, on the container (9 VAC 5-40-7150). However, they are not required to show coating category on the container. For easy verification of VOC compliance by user, the manufacturer should be required to list coating category next to VOC content.

RESPONSE: As discussed in the response to comment 1, we agree that the distinction between internal and external supply transactions needs to be clarified, and have done so in the applicability section rather than adding a new definition.

With respect to listing coating categories, the current labeling requirements are adequate. This rule does not significantly differ from the OTC rules in order to maintain regional consistency, and to avoid additional, differing requirements that create a burden for manufacturers without significantly improving the rule's ability to protect air quality. No change has been made to the proposal based on this comment.

13. **SUBJECT:** Industrial maintenance coatings, nonindustrial use.

COMMENTER: TNEMEC

TEXT: We feel it important that the definition for "Nonindustrial Use" contained in the proposed rule be eliminated. The nonindustrial use definition severely restricts the use of coatings for many applications that would fall within the intended use of industrial maintenance coatings. The intended use of industrial maintenance coatings should encompass any application that meets the requirements of the industrial maintenance definition stated in the rule without restriction.

Based on the non-industrial use definition, examples of areas where high performance coatings could not be used include natatoriums, schools, hospitals, and water theme parks. All of these facilities contain areas that are subject to one of more of the extreme environmental conditions listed in the industrial maintenance coatings definition. The definition for industrial maintenance coatings outlined in the proposed rule is essentially identical to the definition of industrial maintenance coatings contained in the CARB SCM, SCAQMD Rule 1113 and National AIM VOC Rule. None of these rules contain a definition of nonindustrial use.

The intent of industrial maintenance coatings definition is to allow the use of these high performance coatings in any area (commercial, industrial, institutional, etc.) where extreme environmental conditions exist as noted in the definition of industrial maintenance coatings. The inclusion of the nonindustrial use definition precludes the use of high performance coatings where they are required and intended according to the industrial maintenance coating definition. The word "industrial" used as part of a definition (intended use) for industrial maintenance coatings should not be interpreted as a restriction for the use of these coatings only in "industrial" processes or settings.

RESPONSE: Inclusion of a definition for "nonindustrial use" does not exempt these coatings from the rule, rather, it supports the special requirements for rust preventative coatings and should therefore remain in the rule.

14. **SUBJECT:** Extreme durability coatings.

COMMENTER: TNEMEC

TEXT: There should be an additional coatings category definition added to allow the use of air-dried fluoropolymer-based coatings. These high performance finishes are designed to provide extended color and gloss retention in critical areas, eliminating the need for multiple coating applications over time. At a proposed VOC level of 400 grams per liter, these products will actually reduce the total VOC released over the lifetime of high profile architectural structures. These fluoropolymer-based coatings are typically used for field touch-up, repair, and overcoating of aged Kynar 500 shop-applied coatings that require force curing at 400°F and new construction projects. We propose the following new category definition be added and a limit of 400 grams per liter for this category be added:

"Extreme Durability Coating - An air-dried coating, including fluoropolymer-based coating, that is formulated and recommended for application to exterior metal surfaces and touch-up, repair and overcoating of precoated metal surfaces, and that meets the weathering requirements of American Architectural Manufacturers Association (AAMA) Specification 605-98 - Voluntary Specification Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels."

EPA recognized the need for these types of coatings during development of the National Volatile Organic Compound Emission Standards for Architectural Coatings (National AIM VOC Rule). The definition for extreme durability coatings in the National AIM VOC Rule is similar to the above proposed definition. The VOC limits for the extreme durability coating category in the National AIM Rule have been set at 800 grams per liter. Based on recent technology, coatings of this type are available that do not exceed 400 grams per liter as applied, which is consistent with our recommendation.

RESPONSE: This comment is acceptable and appropriate changes reflecting the intent of the comment have been made to the proposal.

15. **SUBJECT:** Metallic pigmented coatings definition.

COMMENTER: TNEMEC

TEXT: The metallic-pigmented coating category in 9 VAC 5-40-7130 places requirements on the amount of metallic pigment that a coating must contain, in addition to VOC limits, to comply with the metallic category. Things are not always as they appear and this is especially true for metallic finishes. Many of the colors that appear metallic do not meet the definition of metallic. This is because "metallic" is determined by the weight of metallic pigment per unit volume and not the appearance of the coating.

Metallic pigment is defined as "particles of flakes of nonoxidized metals or alloys used as pigments to modify the optical characteristics of a paint, to hide the substrate, modify the color, or adjust other properties." This means that any compounded metal like tin oxide, aluminum oxide and iron oxide are not counted as metallic pigment when making the calculations of metallic pigment content. Many of the metallic finishes that TNEMEC offers utilize Mica for the lustrous metallic appearance. Metallic paint is defined as a "paint which, on application, gives a film with a metallic appearance" in accordance with the paint and coatings encyclopedic dictionary. Mica is a "complex of hydrous potassium-aluminum silicate minerals" and is not considered a metallic pigment by definition although it yields an appearance that meets the definition of metallic paint.

TNEMEC has 107 metallic colors in two product lines; enclosed are two sample panels of metallic paint formulations that meet the industry definition of metallic paint. The first panel is a blend of aluminum and mica pigments. The second panel does not contain any elemental metallic pigments. Neither of these two formulations will meet the metallic definition in 9 VAC 5-40-7130. I believe that the intent of having a metallic coatings definition was to allow the use of decorative products that require more solvent and the subsequent lower viscosity to allow these pigments to orient during the curing process to yield the metallic appearance. CARB reiterates this intent where it indicates, "Metallic pigmented coatings produce a dry film that has a metallic appearance." In addition to the metallic appearance, Mica is a chemically-inert material that offers improved color and exterior performance over elemental metallic pigments.

It is important that the department consider inclusion of wet ground Mica as an acceptable pigment for the metallic pigmented coatings definition. This will provide much more latitude for metallic architectural coatings in their color choices and result in the additional benefit of improved exterior performance. We continue to see more and more specifications that utilize these coatings. Some contain metallic pigments, but the majority of them do not.

This change in definition was accepted by the SCAQMD and they recently revised the definition for metallic pigmented coatings. We suggest that the metallic coatings definition in 9 VAC 5-40-7130 be changed to the following: "Metallic pigmented coatings are coatings containing at least 48 grams per liter of elemental metallic pigment, mica particles or any combination of metallic pigment or mica particles." This definition is similar to the current SCAQMD Rule 1113 Metallic Pigmented Coating definition.

RESPONSE: This comment is acceptable, and appropriate changes reflecting the intent of the comment have been made to the proposal.

16. **SUBJECT:** Definition of bituminous roof coatings.

COMMENTER: Roof Coatings Manufacturers Association

TEXT: Under 9 VAC 5-40-7130 C, the definition for bituminous roof coatings is rather limiting for our members. "Bituminous roof primer means a primer which incorporates bitumens that is labeled and formulated exclusively for roofing." [emphasis added] There are bituminous roof coatings which are used for both roofing and other uses such as damproofing and waterproofing. In many instances the products are virtually identical but are used for different applications. Some materials labeled as roof coating may also on the label offer the alternative use of that product such as for damproofing or waterproofing. We understand the proposed definition comes from the California regulation but the definition for "Bituminous Coatings and Mastics" listed in the EPA National Rule would be more accurate for our industry and covers the multitude of products currently available to the consumer.

That definition is as follows: "Bituminous coating and mastic means a coating or mastic formulated and recommended for roofing, pavement sealing, or waterproofing that incorporates bitumens. Bitumens are black or brown materials including, but not limited to, asphalt, tar, pitch, and asphaltite that are soluble in carbon disulfide, consist mainly of hydrocarbons, and are obtained from natural deposits of asphalt or as residues from the distillation of crude petroleum or coal."

The proposed definition would exclude from regulation products that were not "exclusively" used or labeled for roof coating. The use of the EPA AIM definition would correct this deficiency.

RESPONSE: This comment is acceptable, and appropriate changes reflecting the intent of the comment have been made to the proposal.

17. **SUBJECT:** Bituminous roofing primer VOC content.

COMMENTER: Roof Coatings Manufacturers Association

TEXT: The VOC content proposed for bituminous roofing primer" (350 grams per liter) is below the limits necessary for the product to perform properly in the

range of climatic conditions found in Virginia. Such a product would have difficulty meeting the consensus performance standard published by the American Standard for Testing and Materials (ASTM D-41, "Standard Specification for Roof Primers").

The role of a primer is to wet and encapsulate the inevitable dust and dirt on even a cleaned roof and to fill the imperfections in the roof surface so that the final roof coating adheres properly. The lower viscosity which is a result of a higher VOC content allows the primer to flow into these areas of the roof. Thicker formulations often do not fill the voids which results in poor roof performance and lack of adhesion. As temperatures decline viscosity increases, further accentuating these problems. It is important to recognize the performance limitations of this important industrial product if the VOC content is reduced below the 450 grams per liter as specified in the National Rule.

At the level proposed by Virginia, this product will be more difficult to apply in cooler temperatures. Generally, priming is done first thing in the morning. The primer will be more viscous, will not cure as quickly and will degrade the performance of subsequent coatings.

In addition, reducing the bituminous roof primer product category below 450 grams per liter would not necessarily result in lower VOC emissions into the atmosphere. At 450 g/l the product would be applied in a relatively thin coat. If the proposal is adopted, the lower VOC standard would result in a "thicker" application of the product on a per square foot basis resulting in greater VOC emissions.

RESPONSE: See response to comment 5. No change has been made to the proposal based on this comment.

18. **SUBJECT:** Recording and recordkeeping.

COMMENTER: Roof Coatings Manufacturers Association

TEXT: 9 VAC 5-40-7220 D-G requires the producers of bituminous roof coatings or bituminous roof primers to submit an annual report commencing in April 2005. Firstly, the report does not provide information related to, or necessary for, the enforcement of the regulation. The labeling requirements are sufficient to determine whether a product is in compliance with the regulation. Secondly, we are becoming increasingly concerned that OTC states are mandating differing reporting requirements. The administrative burden in complying with a multitude of individual state reporting dates, specifications, reporting contents and formats, and products constitutes an intolerable administrative burden on our industry. Finally, Virginia's proposed reporting requirements would not provide an accurate database of usage for these products within the state of Virginia. For example, most of our members sell into distribution; many purchasers of these products in the state re-ship the materials outside of the state and many distributors, located outside of the state, purchase these products for distribution within Virginia. Thus, the manufacturers of such products would have no means of knowing how much of the products it sells to facilities located either in Virginia or outside the state are consumed within Virginia. We believe that manufactures can

only be required to report those shipments made to distributors or other entities inside the state of Virginia.

RESPONSE: As discussed in the response to comment 5, it is important that the regulation be developed to be as uniform as possible in order to minimize unnecessary impacts to national manufacturers. Consistent requirements throughout the affected area is being achieved by implementation of the OTC rules. For each state to significantly alter the rules would force manufacturers into attempting to accommodate different states with no significant environmental benefit as a result.

No change has been made to the proposal based on this comment.